

When Good Development Goes Bad

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Why Dirt Is Not Cheap Anymore

It is a simple concept: water runs downhill and as it does it picks up and carries away natural and man-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even in our underground sources of drinking water.

By far the most visible of any pollutants in our waters are eroded soils and sediment which discolor the receiving water making the impact of such discharges obvious to anyone. In fact, eroded soils and sediment are among the leading pollutants discharged into the nation's waters.

Yet, for a number of reasons, they have proven to be one of the most difficult to regulate and control. As a result, we have seen an increased focus over the past decade by regulators and private citizens to address stormwater impacts.

The History of Erosion Control Regulation

Erosion control regulation began in the 1930s with the former United States Department of Agriculture (USDA) Soil Conservation Service's efforts to prevent erosion resulting from agriculture and forestry practices. The USDA encouraged the adoption of statewide systems of soil conservation districts to implement erosion control practices.

Increasingly, during the 1970s, concurrent with the passage of the Federal Clean Water Act (CWA) states turned to soil conservation districts for assistance in preventing erosion and sedimentation from all sources. This was done even as various localities began to pursue local regulation of activities that caused erosion and sedimentation.

Today, all 50 states, the District of Columbia and U.S. Virgin Islands have programs for erosion and sediment control.

Some are governed under separate erosion and sediment control laws (e.g., Georgia and Nebraska), original conservation district laws (e.g., California and Mississippi), or water quality or watershed protection laws found in states such as Pennsylvania and New Mexico.

Although the specifics vary from state to state, the three general approaches to regulation include:

- Requiring an approved erosion and sediment control plan for any land disturbance;
- Setting limits on soil loss from the site; or
- Requiring a permit based on an approved plan.

However, regardless of the regulatory scheme used, the common methodology for compliance is the proper use of Best Management Practices (BMPs).

BMPs are structural and vegetative conservation measures, both temporary and permanent, that when properly designed, installed and maintained provide effective erosion and sediment control during rain events up to a specified design limit, i.e. the 25-year storm.

Used effectively, BMPs can provide significant soil retention even on sites with severe erosion problems. Regardless of whether the standard is based on the amount of soil lost, the amount of soil and sediment pollution in stormwater discharges, or the perceived effectiveness of the control plan, retaining erodible soils and sedimentation on site ensures compliance with such standards.

Yet, many developers are reluctant to invest the necessary funds needed for appropriate protective measures, especially in states where enforcement is less than stringent. However, the cost of noncompliance can be significant. Damages from erosion can be expensive to repair often requiring dredging, regrading and/or the replacement of eroded soils, damaged structures and eco-systems.

One telling report on five, harbor-dredging projects in Michigan in the late 1960s involved the removal of one million cubic yards of non-natural (meaning caused by man) sediment at a cost of \$2.50-\$4.00 per cubic yard.

The report, published in the 1969 Soil Conservation Service Engineering Field Manual, found that the use of proper control measures to retain these soils in place would have cost only 10-15 cents per cubic yard. While inflation has multiplied all of these costs fivefold, the relative ratios remain valid.

The Clean Water Act and NPDES

The stated purpose of the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters;" (33 U.S.C. § 1251 et se)

In order to achieve this goal, the CWA absolutely prohibits the discharge of any pollutant except under the terms of a permit issued pursuant to the Act. It is a regime of strict liability for violations of CWA standards unconcerned with whether a breach is the result of intention or negligence.

Section 402 of the CWA requires permits under the National Pollutant Discharge Elimination System (NPDES) for all discharges of pollutants into waters of the United States from a point source. Eroded soils and sediments are defined as pollutants under the CWA and in 1987 Congress amended the CWA to require NPDES permits for storm- water discharges.

As a practical matter, NPDES permits are issued and enforced by the majority of states and territories that have been authorized to implement the CWA by the United States Environmental Protection Agency (EPA), although the agency retains jurisdiction and oversight of these programs.

One other important aspect of the CWA is that unlike some state erosion control regulatory schemes, it can be directly enforced by either the government or by affected individuals under the citizen suit provision of the Act. As a result, the CWA has allowed a broader scope of enforcement by allowing citizens to take action where the state and federal governments cannot due to limited resources.

Moreover, as one court noted in the context of a citizen suit under a similar provision for hazardous waste regulation, to the citizen impacted by a third-party infraction, there is no violation too small for enforcement. While customized individual NPDES construction stormwater permits exist under the Act, the more common practice is to regulate stormwater discharges through a general permit with uniform standards and requirements applicable to all sites.

Phase I, the first implementation phase of the general construction stormwater permit, applied the NPDES permit requirement on all projects consisting of five acres or more. Later, Phase II expanded coverage to include sites of one acre or more, which encompasses almost all moderate to large undertakings.

Despite the recent U.S. Supreme Court ruling in *Rapanos v. United States*, the scope of the CWA's jurisdiction remains extremely broad, and the recent Guidance* issued on this subject by the EPA offers little help in clarifying any new restrictions. It is better to move forward under the assumption that the CWA applies to your project.

The purpose of the general NPDES construction stormwater permit is the protection of water quality through the use of a minimum effluent limitation on the discharge of eroded soil and sediment pollution from a construction site.

While many state regulatory schemes are based on the proper creation or implementation of control plans, the CWA focuses on the quality of the stormwater leaving the site. Whether it is a subjective limitation such as a prohibition on the visual discoloration of water, or a specific measurement of turbidity or total suspended solids, the fundamental point of compliance under the NPDES is this effluent limitation.

There are many ways, however, to violate the NPDES permit, which also requires some monitoring and sampling of potentially impacted waters, specific record keeping and retention measures, and regular compliance reporting to the regulatory agency.

Because many NPDES construction stormwater permits also incorporate a particular state's erosion and sediment control regulations, a violation of the state standards will also be a violation of the NPDES permit. Even so, as with the state's regulation, the basic methodology for compliance remains the proper design, implementation and maintenance of BMPs.

Avoiding Litigation

Particular care with erosion and sedimentation control should be taken anytime the development site or adjoining property contains streams, lakes or wetlands.

Any significant sediment discharges directly into these waters will likely lead to government enforcement or a private

action by the adjoining property owner.

Even though it may seem like an efficient use of space, stormwater or sediment detention or retention ponds should never be placed in a live stream, lake or wetland area where even the well-maintained direction of eroded soils and sediment would be a violation of the Act.

The erosion control design also should not otherwise allow the discharge of eroded soils or sediment directly into such surface water or onto an adjoining property.

Standard engineering practice calls for directing stormwater discharges to the lowest point to take it off the property.

Sometimes, due to the reconfiguration of water basins on site during grading, this low point may be a depression on the property line that did not previously contain any significant water flow. Not surprisingly, the resulting creation of a stream across the neighboring property almost always leads to litigation.

Yet, the most common mistakes are the ones that should be obvious: failing to obtain a permit, failing to design, implement, or maintain BMPs, and failing to avoid filling a jurisdictional stream. Of course, the easiest way to insure a lawsuit is to ignore or belittle the problems on an adjoining property.

Practical Advice for Avoiding Erosion Pitfalls

Much like a healthy diet, good erosion control is a discipline and not something that one can implement without some effort.

- Location, location, location - Prudent site selection is often the first step to controlling pollution. Sites with challenging topography or sensitive ecological features will require significantly more work to avoid pollution impacts that must be recognized and accepted from the beginning. Of course, there are also some sites that simply should not be developed.

- Fit the activity to the site, not vice versa - The square peg does not fit the round hole. All too often serious problems are created by trying to over-engineer a site to meet a desired purpose. The fact that it may be possible to engineer a solution to address site deficiencies does not mean that it should be done. Detailed and site specific planning should be utilized on every project to ensure that problem areas are avoided or dealt with appropriately. Erosion control, development and maintenance costs can be reduced if a site is selected and engineered for an activity that fits the site, rather than making the site conform to an activity.

- Be aware of your surroundings at all times - At all stages of development, pay attention to where the water is going. Is it going into a stream? Is it going onto an adjoining property? If so, what kind of erosion and sedimentation impacts is this runoff causing on that property? Are there any environmentally sensitive areas on the development property or downstream that you may impact? Excessive stormwater and sediment created by development should be retained onsite to the maximum extent practicable.

- What is your development footprint - The disturbed area and the duration of exposure should be minimized. Existing natural vegetation should be retained whenever possible to cut down on the potential for erosion. Major land clearing and grading should be scheduled for times of low potential runoff and disturbed areas should be stabilized immediately even if it has to be done more than once.

- Be a good neighbor - Avoid the temptation to use your neighbor's downstream lake as a de-facto detention pond. Be aware of where the water is going not just on the design plans but on the ground. Imagine the headaches suffered by a developer who markets a nature-friendly community next to a large state park, only to find he can be sued under the Clean Water Act for allegedly decimating the park with eroded soil and sediment discharges.

- Don't go in the water! - Avoid encroachments upon watercourses on the site. Water features such as small streams should be used as an enhancement and not filled in and paved over. There is a reason for where the water is flowing, and messing with Mother Nature often leads to more expense.

- Be the tortoise, not the hare - By far the biggest source of erosion and sedimentation problems is the failure to adequately maintain installed BMPs. It is often not sufficient to simply hire someone to cover maintenance and then assume it is being done correctly. Proper maintenance is daily and on-going for the life of the project. Temporary emergency measures taken after a problem arises are not only ineffective, but akin to "putting lipstick on a pig." A slow, steady approach of maintaining constant, diligent maintenance will pay far more dividends in actual erosion control and soil retention than even the fastest emergency response.

- Get your permits – Keep in mind that a construction stormwater permit does not necessarily cover all

impacts from site development. Competent environmental counsel should be consulted to determine if any other permits are needed, or if there are any areas of concern for which other protections exist as related to the project.

What Does the Future Hold?

At this time, it does not appear that the EPA intends to make any significant changes to the scope or threshold of coverage for the construction stormwater NPDES permit.

However, stormwater compliance and enforcement has been designated by the EPA as a priority for 2008-2010 at the national level meaning that the EPA intends to step up compliance monitoring and enforcement actions in this area. The three areas of specific focus for stormwater enforcement are residential construction, big-box store construction and ready mix concrete with sand and gravel operations.

Moreover, USEPA has announced a separate plan for more frequent inspections of sites with stormwater permits beginning in fiscal year 2009 (October 2008). Due to the large number of potential sites to inspect, the intent is to increase the scope and frequency of site inspections, with the initial focus on permitted sites near impaired waters, and sites without proper permits.

In both instances, the EPA expects the states to participate cooperatively on its enforcement and increased inspections. Additionally, the EPA expects the states to further expand on both by taking similar actions with respect to sites that the EPA does not cover.

As a result, it is certain that even greater attention will be paid to erosion and sediment control in the short term due to the enforcement priority, and over the long term through increased inspections. Such increased scrutiny is sure to increase public awareness. As such, a corresponding rise in citizen enforcement or suits seeking damage compensation can be expected.

Anyone undertaking projects in this rising climate of enforcement would be wise to consult a competent and experienced engineer or environmental lawyer who has specific experience in erosion and sediment control issues. SLDT